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Report No. P-5709-KO

MEMORANDUM AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
IN THE AMOUNT EQUIVALENT TO US\$30 MILLION
TO THE
REPUBLIC OF KOREA
FOR A
PUBLIC HOSPITAL MODERNIZATION PROJECT

JUNE 29, 1992

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CURRENCY EQUIVALENTS

(as of December 1991)

Currency Unit Korean Won (W)

US\$1.00 = W757.00

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACRONYMS

ESC	=	Equipment Selection Committee
MOHSA	=	Ministry of Health and Social Affairs
NCD	=	Noncommunicable Disease
NIH	=	National Institute of Health
NMC	=	National Medical Center
PCR	=	Project Completion Report
PIU	=	Project Implementation Unit
PPAR	=	Project Performance Audit Report

FISCAL YEAR

January 1 - December 31

KOREAPUBLIC HOSPITAL MODERNIZATION PROJECTLoan and Project Summary

Borrower: Republic of Korea

Beneficiaries: National Medical Center (NMC), National Institute of Health (NIH), and selected municipal and provincial hospitals

Amount: US\$30 million equivalent

Terms: Repayable in 15 years including 5 years of grace at the Bank's standard variable interest rate.

Relending Terms: The Government would on-lend the proceeds of the loan to beneficiaries at the same interest rate (plus 0.05% p.a.), maturity and grace periods as the IBRD loan agreement. Subborrowers would bear foreign exchange risk.

<u>Financing Plan:</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----	US\$ million	-----
IBRD	0.0	30.0	30.0
National Government	3.0	1.7	4.7
Public Hospitals	2.8	1.7	4.5
National Medical Center	<u>2.7</u>	<u>1.7</u>	<u>4.4</u>
Total	8.5	35.1	43.6

Rate of Return: Not applicable

Staff Appraisal Report: Report No. 10283-KO, dated June 29, 1992

Map: IBRD No. 23611R

**MEMORANDUM AND RECOMMENDATION OF THE PRESIDENT
OF THE IBRD
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN
TO THE REPUBLIC OF KOREA
FOR A PUBLIC HOSPITAL MODERNIZATION PROJECT**

1. I submit for your approval the following memorandum and recommendation on a proposed loan to the Republic of Korea for the equivalent of US\$30 million to help finance a project for public hospital modernization. The loan would be at the Bank's standard variable interest rate with a 15 year maturity including a grace period of 5 years. The proceeds of the loan would be relent to the beneficiary hospitals at the same interest rate (plus 0.05% p.a.), maturity and grace periods as the IBRD loan.

2. **Background.** Korea's rapid economic growth in the last two decades has brought about an impressive increase in real living standards and equally impressive improvements in traditional health indicators, reaching a life expectancy of 71 years, a natural population increase of 1% p.a., an infant mortality rate of 11 per 1,000 live births, and a 95% immunization rate. Economic success and the control of communicable diseases have, however, brought about a changed disease burden. The major causes of death and disability are now noncommunicable diseases such as heart disease, cancer, stroke, and violence and injury. The demand for medical care is rising rapidly as a result of higher income, the introduction of mandatory national health insurance in 1989, chronic and degenerative diseases, and changing technology. At the same time, there is growing concern in Korea over equity issues, including a perceived increase in income inequality and in equitable access to quality medical care. The Government has made a number of policy changes to make the health sector more equitable and efficient, including introduction of universal medical insurance in July 1989, and a regional system of medical referral. It is committed to making health services accessible to the whole population. Policy makers for health care now face three main issues: (a) equity -- further redressing regional imbalances and ensuring financial access for all; (b) cost containment in an environment where supply and demand are both increasing; and (c) monitoring of the quality in medical care.

3. Health care services in Korea are mostly delivered by the private sector, accounting for about 90% of hospitals and about 73% of total health sector expenditures in 1989. However, about 3.2 million people, or 7.5% of the population are classified as poor or medically indigent and are not covered by National Health Insurance. Government-financed public assistance pays for most of their medical care. The poor have traditionally sought medical care at public facilities, and continue to do so out of habit, and because private hospitals have no financial incentives for serving the poor. The public health sector includes several national institutes, including the National Medical Center and National Institute of Health. In addition, the Government operates 260 health centers, 1,318 health subcenters and 2,038 primary health care posts. The Government is also responsible for protecting the health of the public through activities with large externalities such as ensuring the safety and quality of food, food additives, and drugs; producing vaccines and diagnostic antigens; monitoring communicable diseases. Investment is needed to carry out these public sector functions with more

efficiency and efficacy through upgrading equipment needed for research, testing and monitoring.

4. Project Objectives. The objectives of the project are to: (a) increase the access of rural and urban poor to medical care services, especially for early detection of noncommunicable diseases; (b) improve the quality of medical care in public hospitals; (c) assist the country to protect the health of the population through a more effective control of safety and quality of drugs and food, and through monitoring of noncommunicable diseases; and (d) address critical health sector policy issues, focusing mainly on sector financing and cost containment.

5. Project Description. The objectives would be achieved through: (i) expansion of the diagnostic and treatment capabilities of the National Medical Center (NMC); (ii) augmenting the technical capability of the Korean National Institute of Health (NIH); (iii) strengthening of selected public hospitals in prevention and treatment of noncommunicable diseases; and (iv) carrying out a Health Sector Policies and Cost Containment Action Program addressing critical sector issues relating to hospital efficiency, introduction and diffusion of medical technology, fees, and insurance premiums. Research studies would be carried out on national health expenditures, econometric models to study the affordable number of hospital beds and number of physicians, evaluating the impact of National Health Insurance on the Government's policy objectives of equity, cost and quality, and evaluating alternatives for paying providers of medical care services. Other elements of the Action Program include publications on health policy and financing and a national consensus building program. The project would finance additional and replacement equipment; local and overseas training for staff of NMC, NIH, and MOHSA; the Policy Action Program; and the research studies.

6. The estimated total cost of the project is US\$43.6 million equivalent with a foreign exchange component of US\$35.1 million (81%). The Bank loan of US\$30 million would finance about 85% of the foreign exchange component, or 69% of total project costs net of taxes and duties. The beneficiary government hospitals and the Institute would finance complementary inputs (transportation and installation costs, maintenance and consumables, and contingencies). Equipment procured under the project would be financed on the basis of subsidiary loans (about 15) from the Government to the borrowing NMC, NIH, and municipalities and provinces on terms and conditions satisfactory to the Bank. All loan proceeds would be on-lent. A breakdown of costs and the financing plan are shown in Schedule A. Amounts and methods of procurement and of disbursements, and the disbursement schedule are shown in Schedule B. A timetable of key project processing events and the status of Bank Group operations in Korea are given in Schedules C and D, respectively. A map is also attached. The Staff Appraisal Report, No.10283-KO, dated June 29, 1992, is being distributed separately.

7. Project Implementation. The project would be implemented over a four year period. Project implementation would be the responsibility of the Bureau of Medical Affairs in MOHSA with participation of the Economic Planning Board in policy research. Between 10 and 20 municipal and provincial hospitals would be selected to participate in the project. Local authorities would first recommend hospitals on the basis of their need for additional equipment and their willingness to assume responsibility for repaying this loan. The Hospital Management Division of MOHSA would make the final

selection, using the potential improvement in equitable access of the poor to health care as a final criterion. The selection of equipment would be made by an Equipment Selection Committee and would take into account regional distribution, epidemiological need, and efficiency in equipment maintenance and utilization. Research and policy studies would be implemented according to a schedule specified in the Action Program (para. 5).

8. Project Sustainability. Commitment to addressing critical sector issues under the Action Program is reflected in the Government's health sector policies which are already targetting efficiency, equity and quality issues and the country's Seventh Five-Year Plan (1992-96) which in its health sector chapter sets specific goals and allocates resources. A significant step that has already been taken was the creation of the Korea Hospital Management Institute in 1991. The proposed present investment can be easily amortized by the borrowing institutions as the expense would be less than two percent of their annual operating budgets and the investment would generate additional revenue.

9. Lessons Learned from Previous Bank Operations. The Bank's first project in the health sector was a population project (Ln. 1774-KO), which was approved in 1979 and closed in 1987. Project performance was satisfactory. The PPAR (No. 8895, June 29, 1990) praised the major redesign of the project during implementation to meet the rapidly changing needs of Korea's health sector and its support for loans to private hospitals. A second project, Health Technology Project (Ln. 3330-KO) approved in May 1991, focusses on private sector hospitals, on equity and efficiency in the diffusion of medical technology to private hospitals and private sector development; and would strengthen the institutional capacity of MOHSA for planning and managing hospital sector development and financing. Implementation of the project has successfully commenced.

10. Rationale for Bank Involvement. The Korean health care system is well structured and maturing rapidly. Through the proposed project the Bank's involvement would: (a) introduce improvements in allocating equipment to increase access to medical services by the urban and rural poor seeking care in public hospitals; (b) continue policy dialogue through the preparation and implementation of an action plan and research studies on major health policy issues; (c) increase Government's effectiveness in carrying out its mandated public health protection responsibilities for monitoring the safety and quality of food and drugs more efficiently; and (d) support the institutional development of MOHSA and the health policy decision making process. The Bank would also gain experience in helping a middle-income country adapt to an epidemiological transition which could be utilized in similar countries.

11. Actions Agreed. During negotiations, the Government agreed that: (i) loan proceeds would be allocated and equipment selected according to criteria and guidelines acceptable to the Bank; (ii) the subsidiary loan agreement acceptable to the Bank would be applied to all subloans; (iii) the Health Sector Policies and Cost Containment Action Program would be carried out as agreed with the Bank; and (iv) the PIU and the ESC would be maintained until completion of the project. The signing of subsidiary loan agreements with NMC and NIH would be a condition of loan effectiveness, and with municipalities and provinces it would be a condition of disbursement.

12. Impact on Women and Environmental Aspects. The equipment to be procured under this proposed project would be available to diagnose and treat all citizens. The project is therefore gender neutral. It is not expected to result in any negative environmental impact.

13. Program Objective Categories. The primary objective of the project is to increase access to medical services by the urban and rural poor. Support under the project to public hospitals would directly benefit the poor. Public hospitals account for only 10% of hospitals in Korea but they care for the majority of the poor. In 1989, public assistance patients accounted for 41% of inpatients and 25% of outpatients in public hospitals.

14. Project Benefits. As a result of the project, about half of the public hospitals in Korea serving mainly the poorer population groups will have upgraded and modernized their biomedical equipment. This will allow them to detect and treat noncommunicable diseases more effectively and give the smaller and more rural facilities the capability to treat more patients themselves, and thus decrease the flow of referrals to higher level hospitals. The NMC will have upgraded its biomedical equipment for early detection and opportune treatment of noncommunicable diseases. NIH will have improved efficiency in monitoring food safety, drug quality and communicable diseases in order to better protect the public health. A Health Sector Policies and Cost Containment Action Program will have facilitated making policy decisions to contain health care expenditures without jeopardizing access to services and quality of medical care.

15. Project Risks. There are no major risks in this project. A minor risk might be defaulting by project institutions. However, the Project Implementation Unit (PIU) under the ongoing Health Technology Project is operating in a manner satisfactory to the Bank and it is expected that the PIU for the proposed project will also perform satisfactorily and closely monitor loan repayments. The experience with on-lending under the population project was also positive and there were no arrears. The risk of slippage in implementing the Action Program and the research studies would be addressed through semi-annual supervision missions to maintain the policy dialogue.

16. Recommendation. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank and recommend that the Executive Directors approve it.

Lewis T. Preston
President

Attachments

Washington, D.C.
June 29, 1992

KOREA

PUBLIC HOSPITAL MODERNIZATION PROJECT

ESTIMATED COSTS AND FINANCING PLAN

Estimated Costs /a

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----US\$ million-----		
National Medical Center	2.3	10.2	12.5
National Institute of Health	2.3	10.2	12.5
Public Hospitals	2.3	10.2	12.5
Action Program & Training	<u>0.4</u>	<u>0.0</u>	<u>0.4</u>
Base Cost	<u>7.3</u>	<u>30.6</u>	<u>37.9</u>
Contingencies			
Physical	0.3	1.5	1.8
Price	0.9	3.0	3.9
Subtotal	<u>1.2</u>	<u>4.5</u>	<u>5.7</u>
Total Project Cost	<u>8.5</u>	<u>35.1</u>	<u>43.6</u>

/a Net of taxes and duties, which are estimated at US\$4.9 million

Financing Plan:

	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----US\$ million-----		
IBRD	0.0	30.0	30.0
National Government	3.0	1.7	4.7
Public Hospitals	2.8	1.7	4.5
National Medical Center	2.7	1.7	4.4
Total	<u>8.5</u>	<u>35.1</u>	<u>43.6</u>

KOREA

PUBLIC HOSPITAL MODERNIZATION PROJECT

PROCUREMENT METHOD AND DISBURSEMENTS

Project Element	<u>Procurement Method</u>				Total cost including contingencies
	ICB	LCB	Other /a	NBF	
Equipment	29.3 (25.5)		5.2 (4.5)		34.5 (30.0)
Equipment transportation and installation				3.6 (0)	3.6 (0)
Operation and Maintenance				2.4	2.4
Action Program and and Training				0.3 (0)	0.3 (0)
Consumable Materials				2.8 (0)	2.8 (0)
Total	29.3 (25.5)		5.2 (4.5)	9.1 (0)	43.6 (30.0)

/a Includes international and local shopping and direct purchase.

Note: Figures in parentheses are the amounts to be financed by the loan.

NBF: Not Bank-financed

Disbursements

<u>Category</u>	<u>Amount</u> (US\$ million)	<u>% of Expenditures to</u> <u>be Financed</u>
Equipment		100% of foreign expenditures;
(a) for NMC	10.0	100% of local expenditures
(b) for NIH	10.0	(ex-factory cost); and
(c) for Public Hospitals	10.0	65% of local expenditures for other items procured locally
<u>Total</u>	<u>30.0</u>	

Estimated IBRD Disbursements:

<u>Bank FY</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
	----- US\$ million -----				
Annual	3.0	7.0	10.0	7.5	2.5
Cumulative	3.0	10.0	20.0	27.5	30.0

KOREA

PUBLIC HOSPITAL MODERNIZATION PROJECT

Timetable of Key Project Processing Events

(a) Time taken to prepare:	One year
(b) Prepared by:	Government
(c) First Bank mission:	December 1990
(d) Appraisal mission departure:	NA
(e) Negotiations:	June 1992
(f) Planned date of effectiveness:	November 1992
(g) List of relevant PCRs and PPARS:	Population Project (PCR No. 8114; October 3, 1989) (PPAR No. 8895; June 29, 1990)

Project preparation by the Bank was carried out by Messrs. W. De Geyndt (mission leader), and S.Z. Sung (Consultant). Peer reviewers were S. Scheyer, W. Rees (ASTPH), and O. Echeverri (EALPH). The documents were reviewed by Bradley O. Babson, Chief EALPH, and Callisto E. Madavo, Director EAl.

THE STATUS OF BANK GROUP OPERATIONS IN THE REPUBLIC OF KOREA

A. Statement of Bank Loans and IDA Credits /a
(As of March 31, 1992)

Loan or Credit Number	Fiscal Year	Borrower	Purpose	Amount (US\$ million) (less cancellations)		
				Bank	IDA	Undisbursed
Ninety-four loans and nine credits fully disbursed				6,051.17	115.59	
Of which SECALs, SALs, and Program Loans						
2071	1982	Republic of Korea	Structural Adjustment Loan	250.00		
2354	1984	Republic of Korea	Structural Adjustment Loan II	300.00		
2571-0+1	1985	Republic of Korea	Second Industrial Finance	178.06		
				<u>728.06</u>		
2514	1985	SMG	Seoul Urban Transportation	28.76		4.18
2571-2a	1985	Republic of Korea	Second Industrial Finance	4.00		1.06
2600	1986	Republic of Korea	Seoul-Busan Corridor	34.60		2.99
2905	1988	Republic of Korea	Kyonggi Regional Transport	116.00		4.14
2908	1988	Taegu City Government	Taegu Urban Transport	30.00		10.88
2913	1988	Korea Technology Corp.	Third Technology Development	50.00		1.79
3037	1989	Republic of Korea	Technology Advancement	16.40		6.97
3061	1989	Republic of Korea	Road Improvement	200.00		147.70
3178	1990	Republic of Korea	Juan Water Supply	34.00		30.99
3202	1990	Republic of Korea	Technology Advancement II	31.60		27.90
3203	1990	Republic of Korea	Science Technology Research	45.00		42.00
3314	1991	Republic of Korea	Vocational Education Project	30.00		30.00
3315	1991	Republic of Korea	Technology Advancement III	60.00		55.62
3329	1991	Republic of Korea	Housing Project	100.00		86.18
3330	1991	Republic of Korea	Health Technology I	60.00		54.00
3413	1992	Republic of Korea	Gas System Expansion	100.00		76.71
3450	1992	Republic of Korea	Pusan & Taejon Sewer	40.00		40.00
3468	1992	Republic of Korea	Science Ed. & Libraries Computerization	50.00		50.00
3469	1992	Republic of Korea	Vocational Schools Development	<u>30.00</u>		<u>30.00</u>
Total				7,111.52	115.59	702.91
of which has been repaid				4,162.08	21.04	
Total now held by Bank and IDA				<u>2,949.49</u>	<u>94.54</u>	
Amount sold				131.51		
of which repaid				<u>100.82</u>		
Total undisbursed				702.91	-	702.91

/a The status of the projects listed in Part A is described in a separate report on all Bank/IDA-financed projects in execution, which is updated twice yearly and circulated to the Executive Directors on April 30 and October 31.

* SAL, SECAL or Program Loan

B. Statement of IFC Investments
(As of March 31, 1992)

Fiscal Year	Obligor	Type of Business	Original Commitments			Total held by IFC (at cost)	Undisbursed including participants portion
			Loan	Equity	Total		
			-----US\$ Million-----				
1988/74/ 78/77/78/ 80/88/90	Korea Long-Term Credit Bank /a	Development Finance	16.6	24.8	41.4	19.8	-
1970	Atlas Paper Co.	Pulp & Paper	4.5	.5	5.0	-	-
1989	Honam Silk & Ind. Co.	Textiles	1.4	.3	1.7	-	-
1971/74/76 79/80/82 85/89/91	Korea Investment & Finance Corporation	Capital Markets	-	12.4	12.4	8.4	-
1975/76/ 77/79/80/ 84/85/87/ 88/89	Gold Star Co. Ltd.	Electric and Electronics	26.0	27.6	53.6	19.5	-
1975/77/80/ 82/84	Korea Securities Finance Corporation	Capital Markets	5.0	3.4	8.4	-	-
1975/90	Hae Un Dae Development	Tourism	2.8	1.2	4.0	1.2	-
1975/88/89	Tong Yang Nylon Co. Ltd.	Tire Cord Fabric	6.9	6.2	13.2	5.6	-
1976/84/87	Chonju Paper Mfg. Co.Ltd.	Paper	5.0	.9	5.9	-	-
1976/86/88	Korea Zinc Co. Ltd.	Zinc Refining	21.0	5.6	26.6	9.1	-
1977/79/87	Korea Dev. Leasing Corp.	Leasing	15.0	1.8	16.8	1.2	-
1981	Taihan Bulk Terminal	Grain Bulk Term.	7.0	2.5	9.5	1.5	-
1982	Korea Tech. Adv. Corp.	Research & Dev.	-	.6	.6	-	-
1983	Korea Dev. Invest. Corp.	Money & Cap. Mar.	-	6.7	6.7	6.7	2.2
1984	Halla Cement	Cement & Constr. Material	4.3	3.9	8.1	-	-
1985/86	Korea Fund	Money & Cap. Mar.	-	12.8	12.8	-	-
1987	KBRI	Money & Cap. Mar.	-	.2	.2	-	-
1988	Anam Industrial Co.	Electronics	-	15.7	15.7	15.7	-
1988	Oriental Chemical	Chemicals	-	15.2	15.2	-	-
Total Gross Commitments			<u>115.5</u>	<u>142.3</u>	<u>257.7</u>	<u>88.9</u>	<u>2.2</u>

/a Formerly known as Korea Development Finance Corporation.

